IN THE UNITED STATES PATENT AND TRADEMARK OF THE CELL SAME In re the Reissue Application/Reexamination of: URANO et al.

U.S. Patent No.: **5,216,135**

Reexamination Control No.: 90/004,812

Reissue Serial Number: 09/810,650

Issue Date: June 1, 1993

Filed: October 23, 1997

Art Unit: 1626

Examiner: Laura Lynne Stockton

RESPONSE UNDER 37CFR§1.111

Director of Patents and Trademarks Washington DC 20231 May 22, 2002

Sir:

This Response is Applicants' reply to the Office Action dated February 22, 2002. The following remarks are respectfully submitted.

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REMARKS

Claims 7-9 are pending.

1 PAWLOWSKI IS NOT PRIOR ART WITH RESPECT TO CLAIMS 8 AND 9.

In the Office Action, claim 7 is indicated to be free of the art of record and allowed. laims 8 and 9 were first submitted in the Preliminary Amendment of March 15, 2001, in the Reissue Application. Those claims were entered by the Examiner in the Office Action, but rejected as being anticipated by U.S. Patent No. 5,338,641 to **Pawlowski**.

The present application has an original U.S. filing date of January 28, 1991. Since **Pawlowski** has an original U.S. filing date of September 7, 1990, that patent would be a reference against rejected claims 8 and 9 under 35 U.S.C §102(e), *unless* those claims are entitled to the priority date of their Japanese application. That Japanese Patent Application, No. 2-19614, was filed on January 30, 1990, and therefore predates the earliest filing date of **Pawlowski**.

Claims 8 and 9 have written description support both in the present U.S. application (as implied by the Examiner's entry of those claims in the pending Office Action) and in Applicants' Japanese priority application. The issue of written description support to be determined here has been stated by the appellate courts, first in *In re Driscoll*, 562 F.2d 1245, 195 USPQ 434 (CCPA 1977) and later in *In re Wako*, at page 7 (unreported decision Fed. Cir. 2001), *i.e.*, there is written description support if the subject matter claimed is *clearly discernible* in the generalized formula

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... set forth in the earlier filed application." (Emphasis added). In this case, the cyclic hexyl and branched butyl moieties are "clearly discernible" in the definition of the R-groups in Applicants' U.S. and Japanese specifications.

Accordingly, claims 8 and 9 are entitled to priority as of January 30, 1990, and **Pawlowski** is not prior art against those claims. Because **Pawlowski** is not prior art no further response is required with respect to the various rejections under §103, on pages 3-5 of the Office Action.

II WRITTEN DESCRIPTION REQUIREMENT OF §112

The first paragraph of 35 U.S.C. §112 states: "The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same." 35 U.S.C. §112 ¶1 (1994). When written description is the issue, the "primary consideration is factual and depends on the nature of the invention and the amount of knowledge imparted to those skilled in the art by the disclosure." *Union Oil Co. Of Cal. v. Atlantic Richfield Co.*, 208 F.3d 989, 996, 54 USPQ2d 1224, 1232 (Fed. Cir. 2000) (quoting *In re Wertheim*, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976)). An analysis of the adequacy of a disclosure from which priority is claimed begins with a direct comparison of the claims to the disclosure in the priority document. If the claim language is not expressly supported by the disclosure, then the language of the priority document must be analyzed

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for what it conveys to one skilled in the art. *Ralston Purina v. Far-Mar-Co., Inc.*, 772 F.2d 1570, 1575, 227 USPQ 177, 179 (Fed. Cir. 1985). There is no requirement that the application describe the invention exactly. Rather, what is required is that, as of the filing date, the inventor convey with reasonable clarity to those skilled in the art that the inventor was in possession of the subject matter claimed. *See Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991).

A comparison of the *Ruschig* and *Driscoll* decisions makes these general principles clearer. In its decision of *In re Ruschig*, 54 CCPA 1551, 154 USPQ 118 (CCPA 1967), the Court of Customs and Patent Appeals affirmed the holding of the Patent Office Board of Appeals that one of the claims of the patent application at issue was not supported by the application's disclosure. The claim at issue was directed to a single compound. The specification disclosed a compound with three moieties, R, R¹, and R². and subsequently listed a myriad of different chemical compounds from which to choose for each of the variables. As the Court noted: "[T]he general disclosure of the application encompasses something like half a million possible compounds." *Id.* at 1555, 154 USPQ at 121. The Court determined that the broad disclosure did not adequately support the narrow subgenus:

Specific claims to single compounds require reasonably specific supporting disclosure and while we agree with the appellants, that naming is not essential, something more than the disclosure of a class of 1000, or 100, or even 48, compounds is required. Surely, given time, a chemist could name (especially with

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the aid of a computer) all of the half million compounds within the scope of the broadest claim, which claim is supported by the broad disclosure. This does not constitute support for each compound when separately claimed.

Id at 1556, 154 USPQ at 122. The Court required more specific guidance to direct the reader of the patent specification to the claimed compound in order to satisfy §112. In *Ruschig*, the Court announced the now-famous metaphor that a sufficient disclosure is one that marks a trail through the woods by supplying blaze marks on the trees. *Id.* at 1557, 154 USPQ at 122. In other words, in a patent application, one cannot disclose a forest but then later claim a particular tree as the invention.

In contrast, in *In re Driscoll*, 562 F.2d 1245, 195 USPQ 434 (CCPA 1977). the Court of Customs and Patent Appeals did find adequate guidance in the disclosure to one skilled in the art to the claimed invention. The invention in *Driscoll* was a chemical formula with three variables, R, R¹, and R². The claim language recited that R¹ and R² each were to be chosen from only one of the fourteen possible categories of organic compounds disclosed in the priority document. The examiner rejected the claim, stating that the written description requirement was not satisfied in the absence of a guide to direct a person to the specific claimed genus of the priority document, and the inventor appealed the rejection. *See id.* at 1248, 195 USPQ at 436. On appeal, the Court of Customs and Patent Appeals reversed on the grounds that *Ex Parte Markush*, 1925 C.D. 126 (Comm'r Pat. 1925), had sanctioned the practice of listing *many* possible alternative structures usable for an invention and then claiming just one of the possible structures as the invention. *Driscoll*, 562 F.2d at 1249, 195

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USPQ at 437. The *Driscoll* Court distinguished *Ruschig* "because the structural formula there relied on [in *Ruschig*] could have described, at best, only a subgenus including the specific compound claimed, and not the compound itself. In this respect, *Ruschig* is readily distinguishable from the present case where the exact subgenus claimed is clearly discernible in the generalized formula of the thiadiazole urea set forth in the earlier filed application." *Id.* at 1250, 195 USPQ at 438.

III THE CLAIMS AND THE SUPPORT IN THE PRIORITY DOCUMENT

Claims 8 and 9 at issue are shown below:

8. A diazodisulfone compound of the formula;

$$R^{\dagger}SO_{2}CSO_{2}R^{2}$$
 \parallel
 N_{2}

wherein R^1 is a cyclic alkyl group in which the alkyl group is hexyl; and R^2 is a cyclic alkyl group in which the alkyl group is hexyl.

9. A diazodisulfone compound of the formula;

$$\begin{matrix} R^{\mathsf{I}}SO_{2}CSO_{2}R^{2} \\ \parallel \\ N_{2} \end{matrix}$$

wherein R^1 is a branched alkyl group in which the alkyl group is butyl; and R^2 is a branched alkyl group in which the alkyl group is butyl.

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New claims 8 and 9 are supported in the reissue specification as follows (col. 2, lines 32-48):

In the formula (I), the alkyl group in the definition of R^I includes, for example, an isopropyl group, an isobutyl group, a sec-butyl group, a tert-butyl group, an isomyl group, a sec-amyl group, a 2-methylbutyl group, a 2-methyl-2-butyl group, a 1,1-dimethylbutyl group. a 2-hexyl group, a 1,1-dimethylpentyl group, a 1,1-dimethylhexyl group, a cyclopentyl group, a methyl group in the definition of R² includes, for example, a methyl group, an ethyl group, a n-propyl group, an isobutyl group, a sec-butyl group, a tert-butyl group, an n-amyl group, an isoamyl group, a sec-amyl group, a 2-methylbutyl group, a 2-methyl-2-butyl group, a cyclopentyl group, a n-hexyl group, a cyclohexyl group, a n-heptyl group, a n-octyl group, etc. (Emphasis added).

The specific disclosure of cyclohexyl is "clearly discernible," and supports the corresponding recitation in claim 8. The recitation of an isobutyl group, a sec-butyl group, a tert-butyl group is a recitation of all possible configurations of a "branched butyl configuration" and therefore is "clearly discernible" support for that recitation in claim 9.

New claims 8 and 9 are supported in the priority document of the reissue specifications as follows (certified translation, p. 14, lines 5-10).

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In the photosensitive compound represented by the formula [I] of this invention, as the straight-chain, branched or cyclic alkyl group or the alkyl group in the haloalkyl group represented by R^1 and R^2 , there are included C_{1-10} alkyl groups such as methyl, ethyl, propyl, *butyl* amyl, *hexyl*, octyl, and decyl group. (Emphasis added).

The Japanese specification clearly identifies three possible general categories of R^1 and R^2 alkyls -- straight - chain, branched or cyclic. Within each of these categories are various types of alkyls, including butyls and hexyls. Accordingly, cyclic hexyl and branched butyls are clearly discernable (in fact, expressly disclosed) as possibilities for R^1 and R^2 .

THE FEDERAL CIRCUIT DECISION SUPPORTS ALLOWANCE OF CLAIMS 8 AND 9

A few short comments comparing the present claims and the earlier claims are in order. The claims in this application and those considered by the Federal Circuit in the earlier appeal are similar in that they recite the same formula. However, the written description support issues raised by the respective claims are quite different. The earlier claims on appeal recited specific carbon number ranges for R-group moieties in the formula. For instance, earlier claim 1 defined R¹ as "a branched or cyclic alkyl group having 3 to 8 carbon atoms." The Federal Circuit found that there was no guidance in the application to choose the *unstated* "3 to 8"

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range, as opposed to the expressly disclosed range of "1 to 10."1

By contrast, claims 8 and 9 pending in the present application recite particular groups, a cyclic hexyl and a branched butyl, which are expressly identified in the application as possibilities for the R¹ and R² moieties. As the Federal Circuit stated in an earlier appellate decision: the Court of Customs and Patent Appeals in *Driscoll* has "sanctioned the practice of listing many possible alternative structures usable for an invention and then claiming just one of the possible structures as the invention." *In re Wako Pure Chemical Industries, Ltd.*, at page 8. (unreported decision Fed. Cir. 2001). Here, Applicants are merely claiming one of the expressly disclosed structures, a cyclic hexyl in the case of claim 8 and a branched butyl in the case of claim 9.

IV CONCLUSION

In view of the above, Applicants believe that *Pawlowski* has been removed as a reference and that this application is in condition for allowance, and therefore request favorable consideration.

If, for any reason, it is believed that this application is not now in condition

Significantly for pending claims 8 and 9, the Federal Circuit commented on the earlier claims that "Wako would be the same case as Driscoll if [the present patent] had claimed the entire C_{1-10} straight-chain, branched or cyclic alkyl genus in category one of the Markush groups listed in the Japanese application."

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that an Offer to Surrender was filed on March 15, 2001, and that the Form 1449 is attached hereto.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees which may be due with respect to this paper, may be charged to Deposit Account No. 01-2340.

Respectfully submitted,

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Attachment: PTO-1449

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INFORMATION DISCLOSURE CITATION PTO-1449

& Lavue Atty. Docket No. 910094RI and RE Serial No. 09/810,650 (U.S. Pat 5,216,135)

Applicant(s): URANO et al.

Group Art Unit: 1626 Issued Date: June 1, 1993

U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Name	Date	Class	Subclass	Filing Date (If appropriate)
	AA	3,332,936	Diekmann	7-1967	534	556	
	AB	4,491,628	Ito et al.	1-1985	430	176	
	AC	4,603,101	Crivello	7-1986	430	270	

FOREIGN PATENT DOCUMENTS

: 3m	FOREIGN PATENT DOCUMENTS							
		Document No.	Date	Country	Translation (Yes or No)			
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	AD	2-27660	3-1984	Japan				
100	AE	62-115440	5-1987	Japan				

OTHER DOCUMENTS

Single State	AF	Chem. Abstract, 68 (13): 59304j
State Comments	AG	Chemical Abstracts, 60, 19928h (1984)
	АН	Chemische Berichte Jahrg., 97, 735 (1964)
	AI	Polymer Engineering and Science, Dec. 1983, vol. 23, no. 18, pages 1012-1018
	AJ	SPIE, 920, page 67 (988)
	AK	Chemische Berichte Jahrg., 99, 1966, vol. 9, no. 5, pages 1704-1711
	AL	J. Chem. Cos. Perkin Trans. II, No 10., pages 1273-1278 (1982)
	AM	Chemical Abstracts, 114, 33140w (1991)
		Data Considered

Date Considered Examiner

CERTIFICATE OF SERVICE

I certify that one copy of

(1) RESPONSE UNDER 37 CFR 1.111 filed on May 22, 2002

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was served by First Class Mail postage prepaid this 22 day of May 2002 on the third party

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